

# **Investigating TESL Trainees' Perception On The Level Of Readiness In Teaching English For Science And Technology Subject In School**

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**Abstract :** The study generally attempts to investigate TESL trainees' perceptions on their level of readiness towards teaching English for Science and Technology subject in school. It attempts to identify the level of readiness in the areas of knowledge in the EST subject, teaching skills as well as interest in teaching the subject as perceived by the TESL trainees. Questionnaires were distributed to 40 Fourth Year TESL trainees. The data collected were analyzed using Statistical Package for Social Science (SPSS) software. The findings show very positive pattern which indicated that TESL trainees have positive perception towards their readiness in teaching EST subject. Also, this study proves that TESL trainees have a high level of readiness in the area of knowledge in the EST subject, teaching skills and interest in teaching the subject in school. This study hopes to provide TESL trainees with the information they need for self reflection and to equip them with skills and information for their own EST classes when they become teachers later on. At the same time, it is hoped that the study could assist curriculum planners to design more comprehensive and cohesive curriculum in the future in order to prepare TESL trainees better in the field pertaining to science and technology.

*Keywords :* TESL Trainees perception, level of readiness, Science and Technology

## **Introduction**

In line with globalization and the rapid advances in information and communication technology (ICT), knowledge is available in greater volume and speed than ever before. Learners should be taught the various ways of accessing this information and to use the information to advance their knowledge in various fields.

As future English language teachers, students who are doing Bachelor in Science with Education (TESL) are expected to ensure that the objectives of the EST subject can be achieved in their teaching. Therefore, the future English language teachers need to have certain characteristics in order to achieve the aims. According to Boyer (1990, cited in Dill, 1990) , a teacher needs to have characteristics such as (i) knowledge, (ii) values and (iii) skills in order to be effective teachers. Cutlip and Shockley (1997) state that the characteristics of a quality teacher as someone who is (i) expert in a subject field, (ii) uses a variety of teaching methods and (iii) interested in students.

Besides that, Subahan and Abdul Raof (1991) feel that a teacher has to possess the basic of education, the mastery of academic lesson content, the usage of pedagogic principles and professionalism needed. Marsh (1996:311) states that "...professional possesses a set of relevant attributes such as knowledge, abilities, skills and attitude". The professional in this context is referred to teachers. Dill (1990) pictures a teacher as someone who knows something unknown to others, presumably the students. In this matter, in order to equip students with all the EST objectives mentioned above, it is a necessity for the teachers to equip themselves with all the knowledge and skills required in teaching the subject. It can be summarized that the level of readiness can be evaluated from three aspects, which are knowledge, skills and professionalism.

## **Statement of Problem**

The success of teaching the EST subject depends on teachers who work in schools. In an educational context, teachers' roles are diversified in nature. Identifying the problems and the means to overcome any problems that could lead to the failure of teaching EST subject will go a long way to enable teachers to perform their multiple roles effectively.

Looking back at the objectives of the EST subject in the KBSM syllabus, teachers must possess the knowledge and skills that have been outlined in the syllabus before they can start teaching the students. Teachers must have the knowledge on how to access and understand the scientific texts, basic concepts and ideas of scientific thoughts and enquiry in English to all kinds of scientific and technical discourse. As the EST subject recommended the communicative methodology for teaching this subject as stated in Sukatan Pelajaran Bahasa Inggeris Untuk Sains Dan Teknologi 2001, KBSM (2001:1), teachers should have the knowledge and skills on how to devise activities that will promote communicative learning in EST classrooms.

Other than having knowledge and skills, interest in teaching the subject is also important. It is because interest will influence the teachers in doing something consciously or unconsciously as stated by Crow and Crow (1980) in that, interest is the main power that maintains someone's career.

Therefore, investigating the TESL trainees' perceptions on knowledge in EST subject, teaching skills and interest towards the subject would indicate whether they are ready to teach the subject later on.

## **Objectives of the Study**

The objectives of this study are to:

1. Determine the perception on the level of readiness in the area of knowledge in the EST subject among final year TESL trainees in teaching English for Science and Technology.
2. Determine the perception on the level of readiness in the area of teaching skills among final year TESL trainees in teaching English for Science and Technology.
3. Determine the perception on the level of interest among final year TESL trainees in teaching English for Science and Technology.

## **Significance of the Study**

The study examines the perception on the level of readiness of TESL trainees in performing actual teaching of EST subject in school. The outcomes of this study would be useful to make them aware of their capabilities.

Generally, this study would provide TESL trainees with the information they need for their self-reflection. TESL trainees would be able to reflect their practice and whether it coincides with the aims and purposes of teaching the EST subject. They may also use this study as a base to enhance their teaching skills, knowing what is expected in teaching EST subject and share some ideas on how to prepare themselves for teaching the subject in school later on. In addition, the study is beneficial to future teachers to prepare themselves to teach EST subject.

## **Respondents**

The respondents consist of 40 Fourth Year students. Forty questionnaires were distributed to all the respondents and they were returned immediately.

## **Research Instrument**

Only one instrument was used for this research which is the questionnaires. This was the primary source of the data gathered as the questions asked in these particular questionnaires are based on the research questions.

### **Questionnaires**

This study used questionnaire as an instrument to collect data. The questionnaire consisted of structured questions as well as open-ended questions. Wallen and Fraenkel (2000) believe that structured questionnaires are able to enhance consistency or responses across respondents. It also provides a set of possible responses to make it easier for the respondents (Nunan, 1992) and the responses can be straightforwardly analyzed (Munn and Drever, 1993).

Questionnaires are easy to analyze and very cost effective when compared to face-to-face interviews especially when involving large sample sizes. Data entry and tabulation for nearly all surveys can be easily done with many computer software packages. A well-designed questionnaire that is used effectively can gather information on both the overall performance of the test system as well as information on specific components of the system.

Meanwhile, the open-ended questions were used to provide the respondent to elaborate on explanation and express their opinion freely. They were able to decide what to say and how to say it. This is where they can “write in their own concerns” (Munn and Drever, 1993:6).

The questionnaires were divided into five sections that are Section A, B, C, D and E. Section A consists the demographic information of the respondents. While Section B, C and D consist of item questions based on the research questions. Section E consists of open-ended questions that allow respondents to give their comments or opinions towards teaching the EST subject in school.

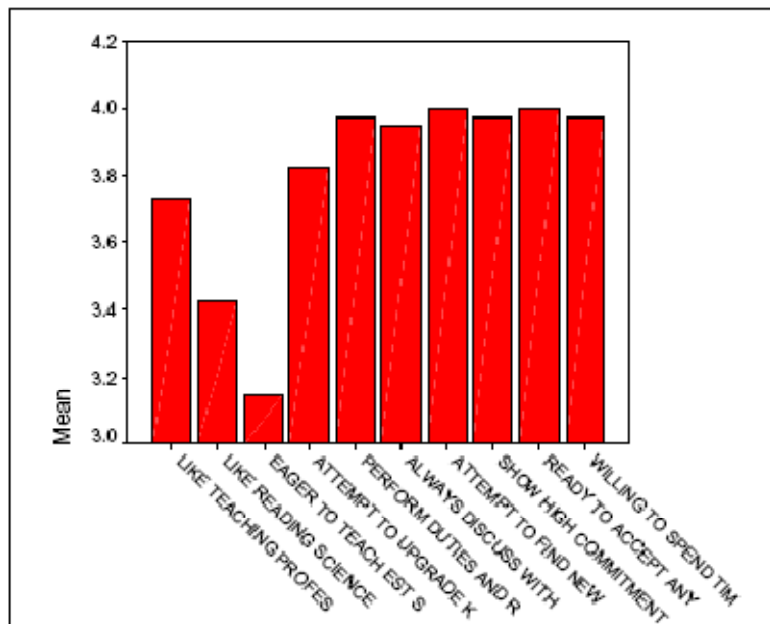
### **The Pilot Study**

The questionnaire was designed by the researcher. Therefore, a pilot study is needed to guarantee the validity and the reliability of the items in the questionnaire (Munn and Drever, 1993). According to them, pilot study is vital in guaranteeing the reliability of the questions and techniques adopted. Munn and Drever also point out four significant reasons to have a pilot study. Firstly, a pilot study would give the researcher the estimated amount of time needed by the respondents to complete the questionnaire. Secondly, it will give the space and opportunity for the researcher to identify any superficial items in the questionnaire. Pilot study is also “to eliminate any questions which may be ambiguous or confusing” (Nunan, 1992:157). Thirdly, a pilot study will also help the researcher in determining whether the respondents see the questions as important and whether they will be able to interpret them correctly. Finally, for researcher to be able to verify whether the ideas and answers are easily expressed and respondents are able to interpret the items to the intended meaning.

For the pilot study, questionnaires were distributed to four Fourth Year TESL trainees. The rationale for choosing them as the pilots was due to the fact that these trainees possessed similar academic background as the intended respondents. It took them 30 minutes to complete the questionnaire. After completing the questionnaire, it was found that the respondents did not have major problems in answering the questionnaire. Questionnaire was then revised based on the comments given by the respondents.

## Data Analysis

The findings in this section will answer the third research question: “What is the level of interest as perceived by the final year TESL trainees in teaching English for Science and Technology?”. In order to answer this research question on the perception on interest in teaching EST subject, 10 questions were asked as shown in Table 1 below. The findings are summarized in Figure 1 and Table 1 below.



**Figure 1:** TESL Trainees’ Level of Readiness in the Area of Interest in Teaching EST Subject

Figure 1 and Table 1 show the level of readiness on interest among TESL trainees in teaching EST subject in school. From the table above, it can be seen that the highest mean was 4.00. There were two items that hold this mean of 4.00 namely the items number seven and nine. The percentages for these items are both 100 percent of the TESL trainees gave positive answers. The statements were “I will attempt to find new teaching resources pertaining to science and technology in order to use as teaching aids” and “I am ready to accept any advice from the senior teachers and principals if I were to make any mistake” respectively. The second highest was 3.98. Three items hold this same mean namely the items number five, eight and ten. The percentages for these items are 97.5 percent for positive answers, 0 percent gave negative answers and 2.5 percent for undecided. The item number six hold the value of mean 3.90 which represented the percentage of 95 percent of respondents gave positive answers. These were followed by the items number four, one and two with the value of means 3.83, 3.73 and 3.43 respectively. The item with statement “I am eager to teach EST subject in school” hold the lowest mean of 3.15. Eighty-five percent of the respondents made up the positive answers. While 30 percent gave negative answers and 25 percent for undecided. The findings show the overall values of the mean for all questions were high. It means that the value above 3.0 as suggested by Mohd Majid (2001) as having the high interest in teaching the subject. Therefore, the total average mean of 3.80 can be considered as having high level of readiness in the area of interest towards teaching EST subject.

**Table 1:** TESL Trainees' Level of Readiness in the Area of Interest in Teaching EST Subject

NO.	ITEMS	RESPONSE			MEAN	LEVEL
		D	U	A		
1.	I like teaching profession.	3 7.5%	5 12.5%	32 80.0%	3.73	High
2.	I like reading science and technology texts.	9 22.5%	5 12.5%	26 65.0%	3.43	High
3.	I am eager to teach EST subject in school.	12 30.0%	10 25.0%	18 45.0%	3.15	High
4.	I will attempt to upgrade my knowledge and skills in the science and technology in order to become an effective EST teacher.	1 2.5%	5 12.5%	34 85.0%	3.83	High
5.	I will perform my duties and responsibilities honestly and sincerely.	0 0%	1 2.5%	39 97.5%	3.98	High
6.	I will always discuss with other colleagues and senior teachers about my teaching.	0 0%	2 5.0%	38 95.0%	3.90	High
7.	I will attempt to find new teaching resources pertaining to science and technology in order to use as teaching aids.	0 0%	0 0%	40 100%	4.00	High
8.	I will show my high commitment towards my duties and responsibilities as a teacher.	0 0%	1 2.5%	39 97.5%	3.98	High
9.	I am ready to accept any advice from the senior teachers and principals if I were to make any mistake.	0 0%	0 0%	40 100%	4.00	High
10.	I am willing to spend my time to help my students in upgrading their learning pertaining to science and technology.	0 0%	1 2.5%	39 97.5%	3.98	High
	<b>Total Average</b>	<b>6.25%</b>	<b>7.5%</b>	<b>86.25%</b>	<b>3.80</b>	<b>High</b>

\* D – Disagree, U – Undecided, A – Agree

## Discussion

The first research question is “What is the final year TESL trainees’ perception on the level of readiness in the area of knowledge in the EST subject in teaching English for Science and Technology?”. Six questions were asked in order to answer this research question. Based on the findings, it could be seen that TESL trainees have positive perception on the knowledge in EST subject. Majority of the respondents agree that they have enough knowledge in the subject. From the findings, it could be seen that the highest mean was 3.68 and that was referred to the TESL trainees’ awareness of the content areas covered in EST. This was followed by the item

number one that asks for respondents' understanding on the aims of EST subject. The mean value for this item was 3.63. On the other hand, the lowest mean for this section was 3.30 for familiarity with the form and features of science and technology texts. However, some of them felt that they are not familiar with the forms and features of science and technology texts. This could affect their comprehension on the text. Findings also proves that almost one third of the TESL trainees who are unaware of the aims of EST subject. This could affect the teaching and learning process of the subject as teachers do not know the purpose of teaching it. It can be seen from the table above that the means for all items were at the high level which range from 3.30 to 3.68. The total average is 3.48 which indicate a high level of readiness as stated by Mohd Majid (2001).

Based on the findings on the general skills, the highest value of mean was represented by the item number 12 with the statement "I know how to come up with activities that encourage students to use language actively in EST classroom". Ninety percent of the respondents gave positive answers towards this statement. The second highest was the item number 10 which asks participants on the activities plan that require students to participate in class discussion. The mean value for this item was 3.88 in which 90 percent gave positive answers. In contrast, the item number 17 with statement "I know how to address students' unique weaknesses in EST classroom" represented the lowest value of mean with 3.40. Only 55 percent of the respondents gave positive answers on the statement. The total average of mean was 3.70. According to Mohd Majid (2001), the range of mean value between 3.00 to 4.00 can be regarded as having a high level of readiness. So, it can be said that TESL trainees were at the high level of readiness in the area of general skills in teaching EST subject.

The findings on processing information shows that the highest mean was 3.86 with statement "I know how to teach students to draw conclusions pertaining to science and technology in English" that made up 87.5 percent for positive answers. Only 12.5 percent for undecided and 0 percent for negative answers. The second highest was 3.83 that represented by the item number 36 that made up of 82.5 percent of the TESL trainees gave positive answers towards this statement. Last but not least, the lowest mean was represented by the item number 45 with statement "I know how to teach students to think critically on issues pertaining to science and technology in English". Only 28 or 70 percent of the respondents gave positive answers towards the statement. The overall percentage of mean was 3.75 and as mentioned by Mohd Majid (2001), this range of mean can be regarded as having a high level of readiness. So, it could be said that TESL trainees have the high level of readiness in the skill of processing information.

Based on the findings again, the level of interest towards teaching EST subject as perceived by the TESL trainees are at the high level. They are ready to accept any advice from the senior teachers and principals if they were to make any mistake. This indicates that they are willing to admit their mistakes and able to accept any comments or critics from their superior.

As a concluding remark, it can be said that the TESL trainees have sufficient knowledge, skills and interest towards teaching EST subject in school and they are ready enough to accept the challenge.

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